AMENDMENTS TO THE CLAIMS

1. (Original) A system for controlling a volume output by a set of headphones to prevent harmful sound levels from damaging a user's hearing, the system comprising:

a volume sensor/controller for determining sound levels from an audio source and comparing the predetermined sound levels to a volume threshold; and

a warning indicator for indicating that the determined sound level is outside the volume threshold.

2. (Original) A system for controlling volume output as described in Claim 1, wherein the determined sound levels are represented as energy functions according to their respective frequencies.

3. (Original) A system as described in Claim 1, wherein the volume sensor/controller comprises:

a volume calibrator for setting the volume threshold;

a volume/frequency measurement sensor for representing the determined sound levels as energy functions; and

a comparator for comparing the determined sound levels with the volume threshold and notifying the warning indicator that the volume threshold has been exceeded.

4. (Original) A system as described in Claim 1, wherein the warning indicator is fixed to the headphones for indicating when the volume threshold has been exceeded.

5. (Original) A system as described in Claim 4, wherein the warning indicator comprises a plurality of LED's.

6. (Original) A system as described in Claim 4, wherein the warning indicator

comprises an LCD.

7. (Original) A system as described in Claim 4, wherein the warning indicator comprises an audio indicator.

8. (Original) A volume sensor/controller as described in Claim 3, wherein the volume calibrator comprises:

a category selector allowing the user to select between different volume controlling settings matching different user characteristics; and

a category data base for storing the sound characteristics for the volume controlling settings.

9. (Original) A volume calibrator as described in Claim 8, wherein the category data base comprises:

a default user setting;

an age dependent setting;

a listener type setting; and

a manually controlled setting.

10. (Original) A category data base as described in Claim 9, wherein the listener type setting is configured for setting the volume for a user having a form of hearing loss.

11. (Original) A system for controlling a volume output by a set of headphones to prevent harmful sound levels from damaging a user's hearing, the system comprising a volume sensor/controller for:

determining sound levels from an audio source;

comparing the determined sound levels to a volume threshold; and

adjusting the volume output of the headphones to a level below the volume threshold if said determined sound level is above the volume threshold.

12. (Original) A system for controlling volume output as described in Claim 11, wherein the determined sound levels are represented as energy functions according to their respective frequencies.

13. (Original) A system as described in Claim 11, wherein the volume sensor/controller comprises:

a volume calibrator for setting the volume threshold and a volume control mode;

a volume/frequency measurement sensor for representing the determined sound levels as energy functions;

a comparator for comparing the determined sound levels with the volume threshold; and

an active volume controller for controlling the output volume by adjusting the output volume accordingly in an automatic volume control mode.

14. (Original) A volume sensor/controller as described in Claim 13, wherein the volume calibrator comprises:

a volume control mode selector allowing the user to select between an automatic or manual volume control mode;

a category selector allowing the user to select between different volume controlling settings matching different user characteristics; and

a category data base for storing the sound characteristics for the volume controlling settings.

15. (Original) A volume calibrator as described in Claim 14, wherein the category data base comprises:

a default user setting;

an age dependent setting;

a listener type setting; and

a manually controlled setting.

16. (Original) A category data base as described in Claim 15, wherein the listener type setting is configured for setting the volume for a user having a form of hearing loss.

17. (Previously Presented) A volume sensor/controller as described in Claim 13, wherein the active volume controller comprises:

a volume adjuster for adjusting the volume according to the compared energy value; and

a notifier for notifying a warning system that an adjustment was necessary.

18. (Original) A system for controlling a volume output to prevent harmful sound levels from damaging a user's hearing, the system comprising:

a set of headphones;

a volume sensor/controller for determining a sound level corresponding to an audio source and comparing the sound level to a volume threshold; and

a warning indicator remote from the headphones, in communication with the volume sensor/controller, for indicating that the determined sound level is above the volume threshold.

19. (Original) A warning system as described in Claim 18, wherein the warning indicator is provided by a PC.

20. (Original) A warning system as described in Claim 19, wherein the PC includes a database for storing a user's listening history.

21. (Original) A warning system as described in Claim 18, wherein the warning indicator is provided on a remote hand held device.

22. (Original) A system as described in Claim 18, further comprising wireless connection hardware for wirelessly connecting the headphones and the audio source.

23. (Original) A method for controlling a volume output of a set of headphones to prevent harmful sound levels from damaging a user hearing, the method comprising:

setting a volume threshold;

receiving audio signals from an audio source;

comparing the audio signals to the volume threshold; and

adjusting a volume output of the compared audio signal to be within the volume threshold.

24. (Original) A method as described in Claim 23, further comprising sending a warning signal to a warning indicator when the audio signals are determined to be above the volume threshold.

25. (Original) A method of sending a warning signal as described in Claim 24, wherein the warning signal is sent via a network.

26. (Original) A method as described in Claim 24, further comprising storing each occurrence of sending the warning signal in a database.

27. (New) A system for controlling a volume output by a set of headphones to prevent harmful sound levels from damaging a user's hearing, the system comprising:

a volume/frequency measurement sensor for determining sound levels from an audio source and representing the determined sound levels as energy functions;

a volume calibrator for setting a volume threshold and a volume control mode, the volume calibrator including a category data base for storing sound characteristics for volume control settings, the category data base including a default user setting, an age dependent setting, a listener type setting and a manually controlled setting;

a comparator for comparing the determined sound levels to the volume threshold; and

an active volume controller for adjusting the volume output of the headphones to a level below the volume threshold, if a determined sound level is above the volume threshold, and for controlling the volume output by adjusting the volume output of the headphones, according to the volume control mode, in an automatic volume control mode.

28. (New) A system for controlling volume output as described by Claim 27, wherein the listener type setting is configured for setting the volume for a user having a form of hearing loss.

28. (New) A system for controlling volume output as described by Claim 27, wherein the volume calibrator further comprises a volume control mode selector for allowing the user to select an automatic or a manual control mode.

30. (New) A system for controlling volume output as described by Claim 27, wherein the volume calibrator further comprises a category selector for allowing a user to select different volume controlling settings matching different user characteristics.